Guidance for Writing: Test & Evaluation Master Plans

TEMP 101

September 2004

What is a TEMP ?

- **Executive level strategy and basic planning document for**

  all life cycle T&E for a particular system acquisition

- **Overall T&E structure, major elements, and objectives**

- **Consistent with Acquisition Strategy**

- **Sufficient detail to permit planning for timely availability of**

  test resources required to support the T&E program

- **Road Map for integrated:**
  - **Simulation, test, and evaluation plans**
  - **Resource requirements**
  - **Schedules**

Policy/Guidance

- **OSD:**
  - **DOD Directive 5000.1, The Defense Acquisition System, 12 May 2003**
  - **DOD Instruction 5000.2: Operation of the Defense Acquisition System, 12 May 2003**
  - **Interim Defense Acquisition Guidebook, 30 October 2002**

- **Army:**
  - **AR 73-1, Test and Evaluation Policy, 7 January 2002**
    - **Chapter 8: T&E Working-level Integrated Product Team (WIPT)**
    - **Chapter 10: T&E Review and Reporting Requirements**
      - **Para. 10-2 - Test and Evaluation Master Plan**
  - **DA PAM 73-1, T&E in Support of Systems Acquisition, 30 May 2003**
    - **Table of Contents**

OSD documents are accessible at DAU web site http://dod5000.dau.mil/

Army documents are accessible via TEMA website: http://www.hqda.army.mil/tema

Applicable Programs

- **Every Army acquisition program will have a TEMP**
- **Only exceptions are:**
  - **Investigational drugs**
  - **Biologicals**
  - **Medical devices**

Includes
Materiel and Information Technology Programs

Preparation

- **Responsibility: Program/Project Manager (PM)**
- **Execution: T&E WIPT** *(DA PAM 73-1, ch.2)*

Microsoft Word Document

TEMP Content

- **Cover Sheet – JCM (20 Apr 04)**
- **OSD Cover Memo & Approval Page – GMLRS(U) (17 Mar 04)**
- **Coordination Sheet - GMLRS(U) (16 Dec 03)**
- **Table of Contents**
  - **Part I - System Introduction**
  - **Part II - Integrated Test Program Summary**
  - **Part III - Developmental Test Outline**
  - **Part IV - Operational Test Outline**
  - **Part V - T&E Resource Summary**
  - **Annex A - Bibliography**
  - **Annex B - Acronyms**
  - **Annex C - Points of Contact**
  - **Attachment 1 – Requirements/Test Crosswalk Matrix**
  - **Other Annexes and Attachments as required**

} ***Can be combined into an Integrated T&E Outline***

TEMP Preparation Responsibility Matrix

TEMP SECTION			PM	CD/FP	TI	T&E Activity L
Part I. System Introduction						
a. Mission Description	S	P				
b. System Description	P	S				
c. System Threat Assessment	S		P	S		
d. Measures of Effectiveness and Suitability	S	P		S	S	
e. Critical Technical Parameters	P	S		S	S	
f. FCS/UA/UE Enabler Linkages	P			S		
Part II. Integrated Test Program Summary						
a. Integrated Test Program Schedule	P	S		S	S	
b. Management	P	S		S	S	
Part III. Developmental Test and Evaluation Outline						
a. Developmental Test amd Evaluation Overview	P			S	S	
b. Future Developmental Test and Evaluation	P			S	S	
Part IV. Operational Test and Evaluation Outline						
a. Operational Test and Evaluation Overview	S			P	S	
b. Critical Operational Issues and Criteria	S	P		S		
c. Future Operational Test and Evaluation	S	S		P	S	
d. Live Fire Test and Evaluation	S			P		

Legend: **P:** Principal Responsibility **PM:** Program Manager **LOG:** Logistician **TI:** Threat Integrator
S: Support Responsibility **CD/FP:** Combat Developer/Functional Proponent

TEMP Preparation Responsibility Matrix (continued)

TEMP SECTION			PM	CD/FP	TI	T&E Activity	LOG
Part V. Test and Evaluation Resource Summary							
a. Test Articles	S			P	S		
b. Test Sites and Instrumentation	P	S		P	S		
c. Test Support Equipment	S		S	P	S		
d. Threat Representation	S		S	P			
e. Test Targets and Expendables	P		S	P			
f. Operational Force Test Support			S	P			
g. Simulations, Models, and Testbeds	P	S		P			
h. Special Requirements	S			P			
I. Test and Evaluation Funding Requirements	P			P			
j. Manpower/Personnel Training		P		P	S		
Annex A: Bibliography	P	S	S	S	S		
Annex B: Acronyms	P	S	S	S	S		
Annex C: Points of Contact	P	S	S	S	S		
Attachment 1: Requirements/Test Crosswalk Matrix	P	S		S			
Other Annexes/Attachments	P						

Legend: **P:** Principal Responsibility **PM:** Program Manager **LOG:** Logistician **TI:** Threat Integrator
S: Support Responsibility **CD/FP:** Combat Developer/Functional Proponent

Content Detail

Part I - System Introduction **Reference**

DUSA(OR) Comments *App D, Para D-1, DA Pam 73-1*

Microsoft Word Document

Microsoft Word Document

a. Mission Description

Actual TEMP Example: *App D, Para D-1a, DA Pam 73-1*

Microsoft Word Document

b. System Description

FBCB2 (23 Aug 04) *App D, Para D-1b, DA Pam 73-1*

c. System Threat Assessment

d. Measures of Effectiveness and Suitability *App D, Para D-1c, DA Pam 73-1*

Actual TEMP Example:

Microsoft Word Document

FBCB2 (23 Aug 04) *App D, Para D-1d, DA Pam 73-1*

Content Detail, *cont.*

Part I – System Introduction (cont) **Reference**

e. Critical Technical

App D, Para D-1e, DA Pam 73-1

Actual TEMP Example:

Microsoft Word Document

Parameters

Part II - Integrated Test Program Summary

DUSA(OR) Comments

Microsoft Word Document

App D, Para D-2, DA Pam 73-1

Microsoft Word Document

a. Integrated Test Program Schedule

Actual TEMP Example:

Microsoft Word Document

App D, Para D-2a, DA Pam 73-1

b. Management

Actual TEMP Example:

Microsoft Word Document

App D, Para D-2b, DA Pam 73-1

Content Detail, *cont.*

Part III - Developmental Test and Evaluation Outline

Reference

JBAIDS (29 Jul 04)

App D, Para D-3, DA Pam 73-1

Microsoft Word Document

a. Developmental Test and Evaluation Overview

b. Future Developmental Test and Evaluation

Actual TEMP Example:

Microsoft Word Document

App D, Para D-3a, DA Pam 73-1

Actual TEMP Example:

Microsoft Word Document

App D, Para D-3a, DA Pam 73-1

Content Detail, cont.

Part IV - Operational Test and Evaluation Outline **Reference**

App D, Para D-4, DA Pam 73-1

Microsoft Word Document

a. Operational Test and Evaluation Overview

Actual TEMP Example

Microsoft Word Document

App D, Para D-4a, DA Pam 73-1

b. Critical Operational Issues and Criteria

Actual TEMP Example

Microsoft Word Document

App D, Para D-4b, DA Pam 73-1

c. Future Operational Test and Evaluation

d. Live Fire Test and Evaluation

Actual TEMP Example

Microsoft Word Document

App D, Para D-4c, DA Pam 73-1

Actual TEMP Example

Microsoft Word Document

App D, Para D-4d, DA Pam 73-1

Content Detail, cont.

Part V - Test and Evaluation Resource Summary **Reference**

App D, Para D-5, DA Pam 73-1

Microsoft Word Document

a. Test Articles

Actual TEMP Example

Microsoft Word Document

App D, Para D-5a, DA Pam 73-1

b. Test Sites and Instrumentation

c. Test Support Equipment

Actual TEMP Example

Microsoft Word Document

App D, Para D-5b, DA Pam 73-1

d. Threat Representation

Actual TEMP Example

Microsoft Word Document

App D, Para D-5c, DA Pam 73-1

Actual TEMP Example

Microsoft Word Document

App D, Para D-5d, DA Pam 73-1

Content Detail, cont.

Part V - Test and Evaluation Resource Summary (Cont)

e. Test Targets and Expendables

Actual TEMP Example:

Microsoft Word Document

App D, Para D-5e, DA Pam 73-1

f. Operational Force Test Support

App D, Para D-5f, DA Pam 73-1

g. Simulations, Models, and Testbeds

Actual TEMP Example:

Microsoft Word Document

h. Special Requirements

PAC-3/MEADS (29 Jul 04)

MLRS (1 Apr 02)

App D, Para D-5g, DA Pam 73-1

Actual TEMP Example:

Microsoft Word Document

App D, Para D-5h, DA Pam 73-1

Content Detail, *cont.*

Part V - Test and Evaluation Resource Summary (Cont)

i. T&E Funding Requirements

Actual TEMP Example:

Microsoft Word Document

App D, Para D-5h,
DA Pam 73-1

j. Manpower/Personnel Training

Actual TEMP Example:

Microsoft Word Document

App D, Para D-5h,
DA Pam 73-1

Content Detail, cont.

Annexes & Attachments

App D, Para D-6, DA Pam 73-1

Microsoft Word Document

- **Annex A: Bibliography**

  Actual TEMP Example:

Microsoft Word Document

App D, Para D-6a, DA Pam 73-1

- **Annex B: Acronyms**

  Actual TEMP Example:

Microsoft Word Document

App D, Para D-6b, DA Pam 73-1

- **Annex C: Points of Contact**

  Actual TEMP Example:

Microsoft Word Document

App D, Para D-6c, DA Pam 73-1

- **Attachments:**
  - **Attachment 1: Requirements/Test Crosswalk Matrix**

    JCM Requirements/Test Crosswalk Matrix (20 Apr 04)

  - **Attachment 2: Critical Operational Issues and Criteria (Full Set)**

App D, Para D-6d, DA Pam 73-1

- **Other Annexes and Attachments as required** *(would include classified annexes)*

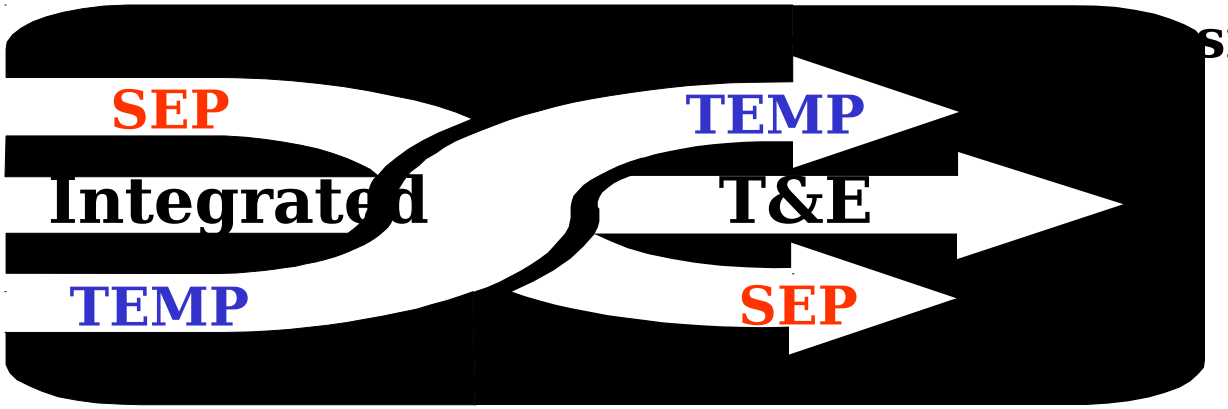
TEMP vs. SEP

TEMP

- **T&E WIPT** produces
- Serves as a **T&E 'Contract'**
- **Issue** level of detail
- Can include **all events**

SEP*

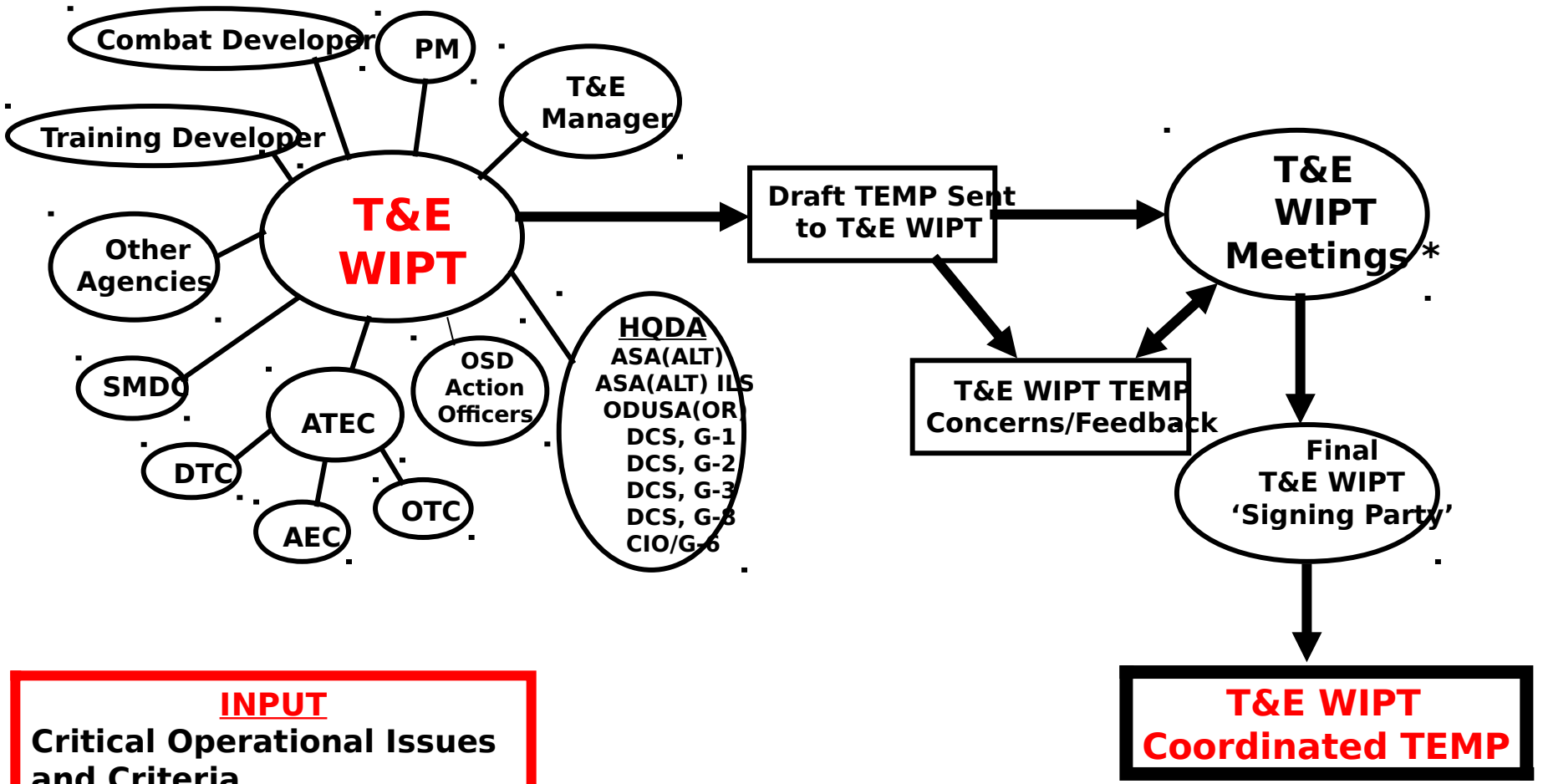
- **System Evaluator** produces
- Outlines **HOW** evaluation will be done
- **Measure** level of detail
- **Only events** necessary for evaluation



sign Plan(s)

*SEP – System Evaluation Plan

ARMY T&E WIPT TEMP Coordination Process



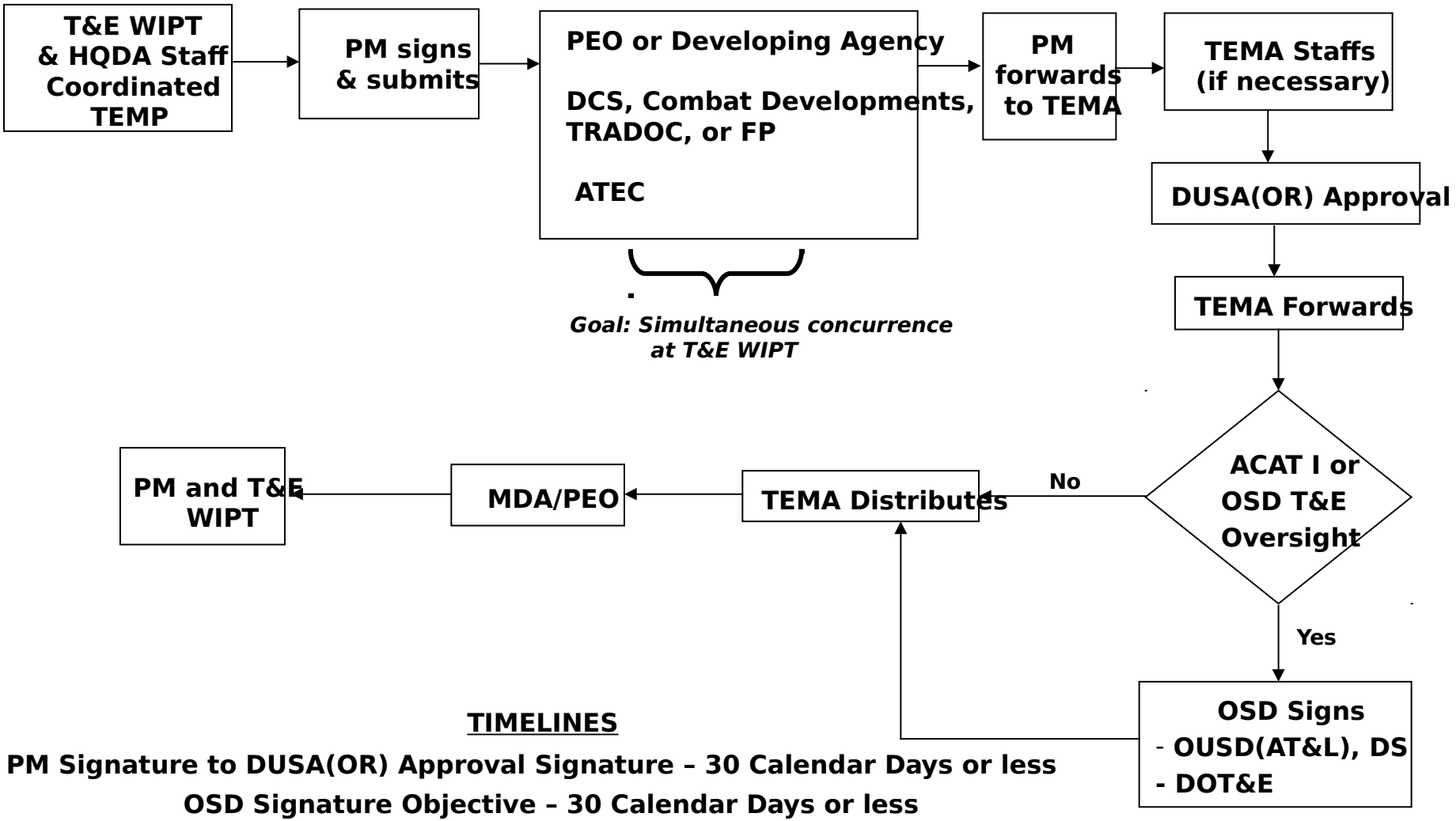
INPUT

Critical Operational Issues and Criteria
Requirements Documents
Acquisition Strategy
System Threat Assessment

- **Meetings repeated until TEMP coordination complete**

TEMP Staffing and Approval Process

OSD T&E Oversight Program



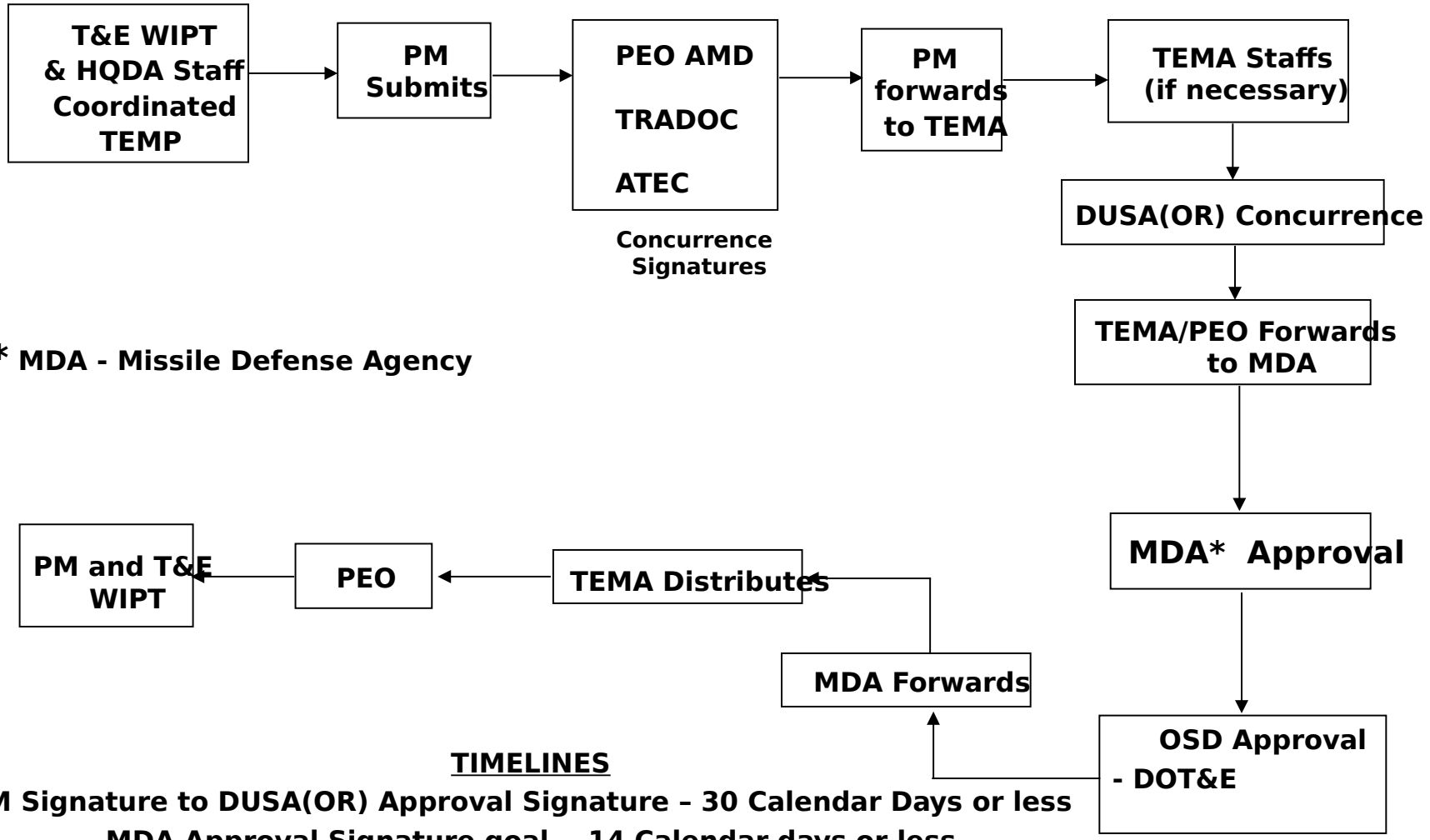
TIMELINES

PM Signature to DUSA(OR) Approval Signature – 30 Calendar Days or less

OSD Signature Objective – 30 Calendar Days or less

TEMP Staffing and Approval Process

Missile Defense Agency Programs



* MDA - Missile Defense Agency

TIMELINES

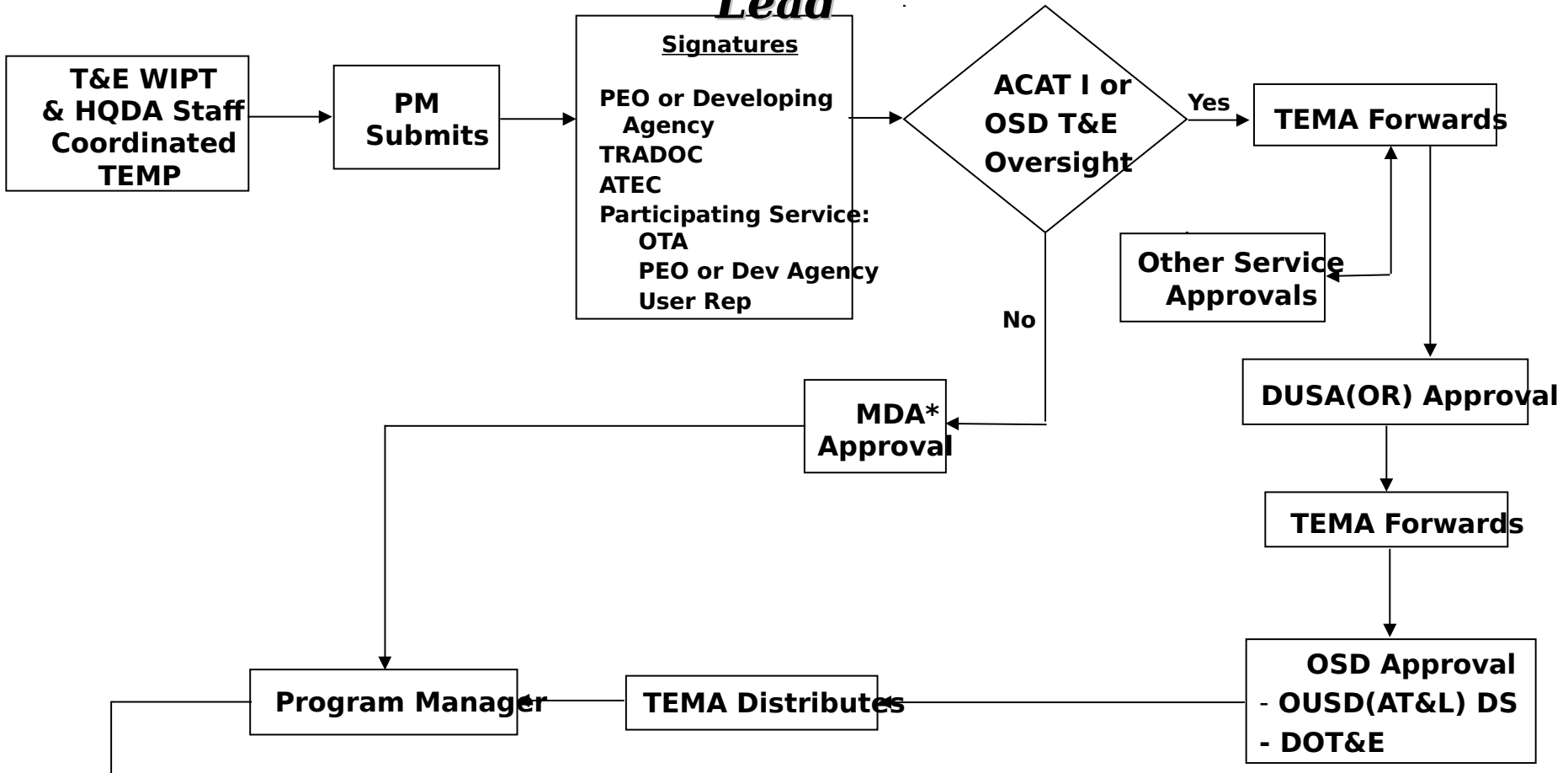
PM Signature to DUSA(OR) Approval Signature – 30 Calendar Days or less

MDA Approval Signature goal - 14 Calendar days or less

OSD Signature Objective – 30 Calendar Days or less

TEMP Staffing and Approval Process

Multi-Service OSD T&E Oversight Programs – Army Lead



TIMELINES

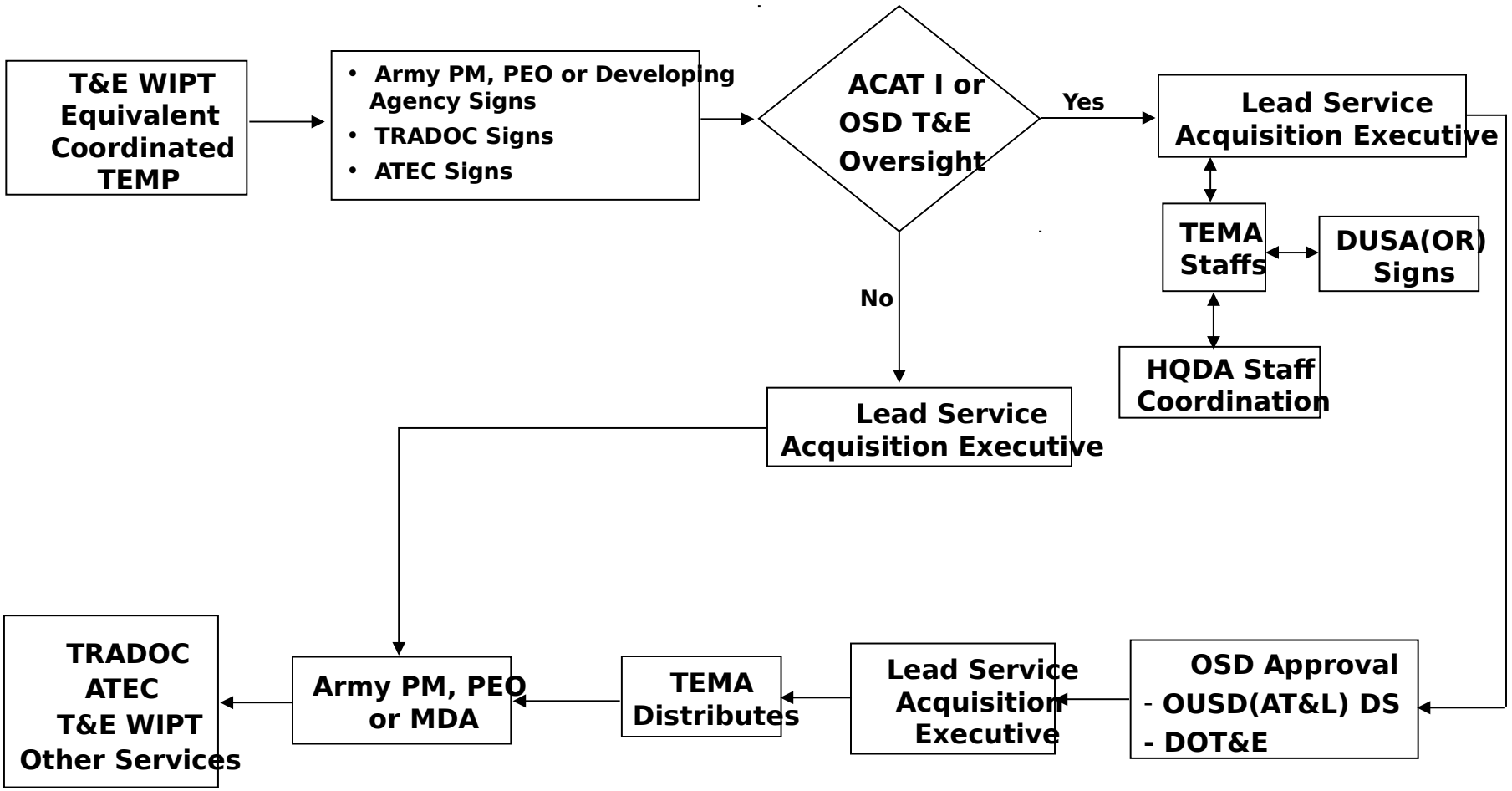
PM Signature to DUSA(OR) Approval Signature – 30 Calendar Days or less

OSD Signature Objective – 30 Calendar Days or less

*** ACAT II programs having MDA delegation also have TEMP delegated approval authority**

TEMP Staffing and Approval Process

Multi-Service OSD T&E Oversight Programs – Army Participant



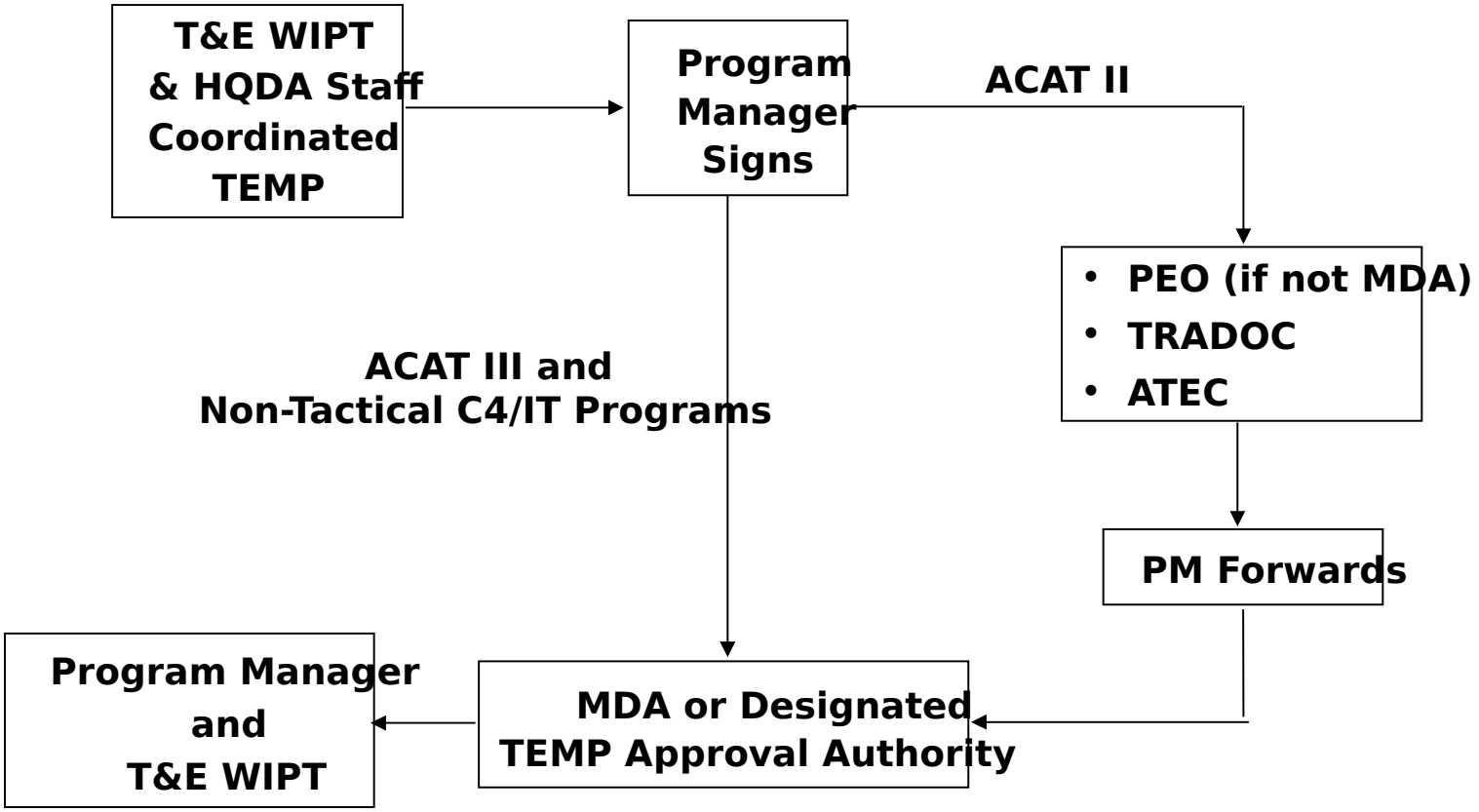
TIMELINES

TEMA Receipt to DUSA(OR) Approval Signature – 20 Calendar Days or less

OSD Signature Objective – 30 Calendar Days or less

TEMP Staffing and Approval Process

Non-OSD T&E Oversight – ACAT II, III, & Army Special Interest Programs



Narrative TEMP Approval Process

(TEMPs requiring DA and/or OSD approval)

- **T&E WIPT develops TEMP** *(all members empowered; includes DA Staff)*
- **Final T&E WIPT meeting** *(all members sign TEMP coordination sheet)*
- **PM signs TEMP approval Signature Sheet; obtains PEO, TRADOC & ATEC simultaneous concurrence** *(Goal: Complete at T&E WIPT via empowered members)*
- **PM delivers TEMP with all concurrence signatures to TEMA**
- **TEMA staffs TEMP; delivers to DUSA(OR) for Army approval** *(TEMA staffing includes HQDA staff when not done during T&E WIPT staffing)*
- **DUSA(OR) provides approval signature within 10 days**
- **TEMA sends TEMP to OSD** (DD, DT&E/S&TS) *(Army goal is within 30 calendar days from PM signature)*
- **OSD staffing and approval objective** (DD, DT&E sends to S&B (or OASD C3I) and DOT&E) *(30 calendar days from receipt to return to TEMA)*

NOTE: *New or updated TEMP must be completed in conjunction with approaching a milestone, a program re-baseline ("breach"), when the associated ORD or Command, Control, Communications, Computers and Intelligence Support Plan (C4ISP) changes, or after "significant change" to the program.*

10 TEMP "DO's and Don'ts"

- **Do invite HQDA offices to participate in the T&E WIPT**
  (list of necessary HQDA offices)

Microsoft Word Document

- **Do know T&E WIPT issues & be empowered**
- **Do have Part V Resources based upon Parts III and IV**
- **Do have Requirements/Test Crosswalk Matrix as Attachment 1**
- **Do know the TEMP Approval Authority before developing the TEMP**
- **Do hold program to the rigorous T&E process**
- **Do treat the TEMP as a "Contract among all Stakeholders"**

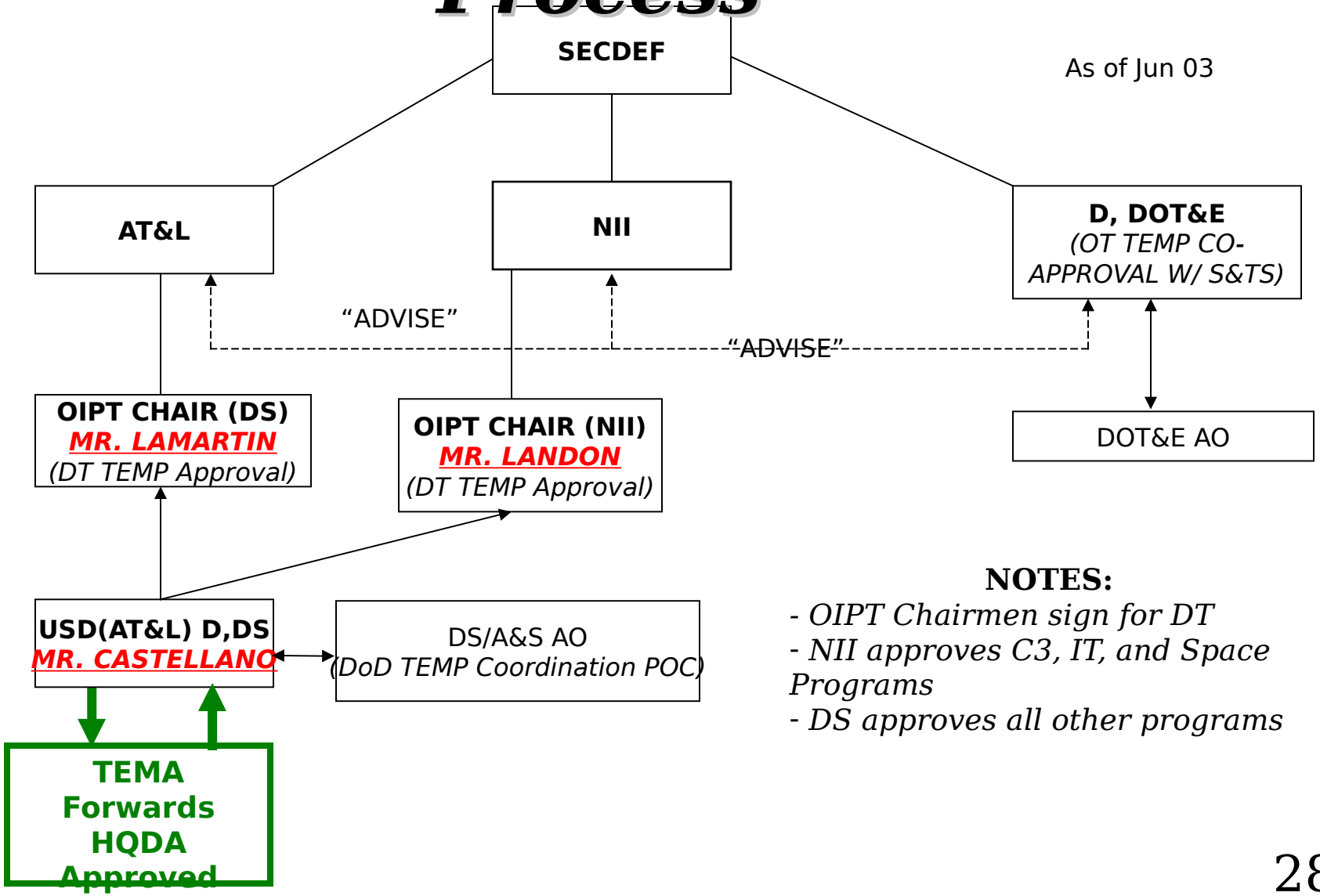
- **Don't dismiss T&E WIPT meetings as not important**
- **Don't 'Concur with Comment' on T&E WIPT Coordination Sheet**
- **Don't have TEMP simply refer to SEP**

"Deadly Sins" Affecting TEMP Approval

- **Size: Body of report, excluding annexes, should be kept to a manageable length**
- **Annexes: Not kept to a minimum**
- **Not complete: Classified data not integrated; submitted separately; too many TBDs in Part V**
- **Approval Page & Coordination Sheet: Not present, not properly signed, out of date, or otherwise altered**
- **COIC: Not approved and incorporated**
- **Reference Documents: ICD/CDD/CPD & STAR unavailable**
- **AoA - COIC Linkage: When applicable, T&E measures not discussed**

OSD TEMP Process

OSD T&E Oversight Programs
TEMP (DT&E) Signature Process



NOTES:

- *OIPT Chairmen sign for DT*
- *NII approves C3, IT, and Space Programs*
- *DS approves all other programs*

OSD TEMP Process, *cont.*

- **Develop the TEMP through the T&E WIPT process**
  - **Add the DT&E/DOT&E action officers to your T&E IPT**
  - **Maintain informal dialog with the DT&E and DOT&E action officers, and their contractor support**
- **Use Defense Acquisition Guidebook for TEMP development**
- **Provide sufficient details about your future DT&E activities (Part III)**
  - **Be specific while eliminating the “fluff”**
  - **A TEMP is a master strategy document, not a detailed test plan. This is the section that answers the “how” not the “why”**

OSD TEMP Process, *cont.*

- **Work with the Defense Intelligence Agency action officers**
  - **Plan to test the system against the threats in the System Threat Assessment**
- **To reduce the size of TEMPs, use pointers to other documents where more details are present, i.e.:**
  - **software development plans,**
  - **modeling and simulation plans**
  - **logistic support plans**
- **Include Modeling & Simulation in the T&E planning**
  - **Reduce cycle time & costs**

OSD TEMP Process, *cont.*

- **Work to combine DT with OT to achieve mutual objectives at reduced costs**
  - **Successfully completing independent OT&E (Title 10 statute requirement) is the final exam in T&E planning**
  - **Be careful to not give up [PM] control of the development test and evaluation plan to the operational test and evaluation side of the house**
    - **There will still be a requirement for a dedicated OT&E event that DOT&E will control**
  - **DT&E is part of the risk reduction measures that are needed to ensure the system is ready for operational testing**
    - **If the size and scope of the dedicated OT&E can be reduced without jeopardizing your DT&E objectives, then combined DT and OT makes sense**

NOTE: *New DODI 5000.2 includes much more emphasis on DT. DT stops at MS C (LRI Make DT more rigorous to ensure success during IOT&E. Involve users in early in DT. M use of modeling and simulation through accredited models.*

OSD TEMP Process, *cont.*

- **Submit electronic version of draft to OSD for staff review**
  - **Identifies “showstoppers” before TEMP enters the Service staffing and approval process**
- **Let DT&E/DOT&E know early if an extension to the TEMP due date is needed**
- **Final staffing at OSD**
  - **30 days window for USD(AT&L) and DOT&E signature**
  - **USD(AT&L)/DT&E TEMP signature process**
    - **OIPT Chairman (iDS, C3I, IT) will sign TEMP for USD(AT&L)**
- **Service TEMP approval timeline is too long**
  - **Especially if all the issues have been worked in the T&E WIPT process**
  - **Challenges to reduce the cycle time to be posed**